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## (54) Title: AUTO-RESET CIRCUIT BREAKER

## (57) Abstract

Prior art generally cannot handle large currents. This automatic solid state circuit breaker protects both the circuit and the breaker from large current surges. A current sensing device (15) is used to generate a voltage drop proportional to the current flowing through the device. When the voltage drop reaches a predetermined level, resulting from an over-current condition, it trips a control circuit (22) that opens a solid state switch in the line. After a defined delay interval the time delay circuit (26) will automatically reset to close the solid state switch (15). If the over-current condition still exists, the control circuit (22) will again open the solid state switch (16). This cycle is repeated at the delay interval until the over-current condition has subsided. Circuits also provide overvoltage protection, through detectors (34) which trigger the control circuit (22) when an over-voltage condition is detected. The application of the invention is to lightning or surge protection, for single line and multiline environments.

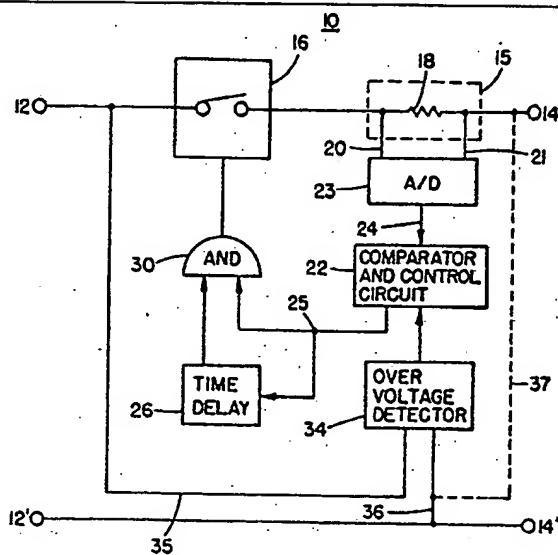


FIG. I (a)

FIG. I (b)

FIG. I (c)

FIG. I (d)

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